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*To enrich lives through effective and caring service.*

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To: Each Supervisor

From: Dave Lambertson  
Director

Subject: **ENERGY UPDATE REPORT**

ISD periodically updates your Board on the County's ongoing energy management activities. This update provides status of electricity rates and natural gas prices impacting ISD's Utilities Budget, ongoing energy efficiency programs being implemented in County facilities and other important energy issues.

**Electric Rates**

**Southern California Edison (SCE)**

SCE has implemented the first of a series of California Public Utilities Commission (CPUC) approved electric rate increases designed specifically to collect for their higher costs in producing power and for purchasing power. These higher costs are directly related to increases in the price of natural gas (i.e., since natural gas is used to produce electricity) as well as other costs associated with generation. The rate increases were fully implemented by April 2006. In total, the increases amount to an approximate 20% rate increase for all SCE customers.

SCE is also proposing another overall rate increase of approximately 5% in an ongoing proceeding at the CPUC. Under their 2006 General Rate Case, SCE is requesting the rate increase to offset higher expenses in operating and maintaining the "lines and wires" portion of their system and for increased administrative costs.

The two rate increases total approximately 25% combined. Actual increases are allocated differently across different customer classes. At this point, ISD anticipates the actual rate impact by customer class to be as follows:

Total Impact of SCE's Rate Increases	
Customer Class	Expected Increase
Residential	21%
Small Commercial	23%
Medium to Large Commercial	30%
Large Commercial and Industrial	25%
Street and Area Lighting	13%

These numbers are not final; the CPUC is required to approve the final allocation of the rate increase. This approval could occur as early as June of this year. ISD has incorporated the anticipated rate increases into the Fiscal Year 2006-07 Utilities Budget.

#### **Los Angeles Department of Water & Power (LADWP)**

In April of 2006, LADWP announced they would be implementing increases in their electric rates to similarly account for higher power production costs due to natural gas prices. LADWP has also been mandated by their Mayor and City Council to incorporate renewable energy sources as 20% of their entire energy supply portfolio by 2010 to reduce their dependence on fossil fuels and improve air quality.

LADWP has indicated they will place a cap on their rate increases to mitigate the impacts to customers of these two rate actions. The rate increase will be capped every 3 months at approximately \$0.001/kWh applicable to all customers. At the maximum, capped rate increase over the course of Fiscal Year 2006-07, the LADWP electricity component of the Utilities Budget would see an approximate 3% increase, or less than \$1 million. This increase is incorporated into the Fiscal Year 2006-07 Utilities Budget.

#### **Natural Gas**

Higher natural gas prices and price volatility continue to have a major impact on the country's businesses and residents, the electric and natural gas utility industries, and the County's budget. Prior to 2000, the County paid approximately \$20 million per year for natural gas. In 2000-01, the actual Utilities Budget expenditures for natural gas were nearly \$70 million. ISD's 2006-07 Utilities Budget includes over \$50 million for natural gas purchases. The historical pricing and the volatility of the current natural gas-pricing situation is illustrated in the chart on Attachment I.

Since 2002, ISD has purchased natural gas for the County's large, central plant facilities (Civic Center Cogeneration Plant, hospitals, jails) on a fixed price, multi-year agreement



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with third-party suppliers in order to mitigate risks associated with market index-based prices. The remaining, smaller gas consuming County facilities are supplied by the Southern California Gas Company (SCG) under their current rate schedules.

Natural gas for the Pitchess Cogeneration Plant is purchased at a monthly market index price because the County is directly reimbursed by SCE for that expense. However, that payment formula is likely to change this summer and is discussed further in this report.

ISD continues to analyze and refine its natural gas purchasing strategies. ISD has saved nearly \$6 million since 2002 when fixed price purchases are compared against actual market prices. We will keep your Board apprised of important issues about the natural gas industry in general and impacts to the County.

### **LADWP Water Rates**

LADWP has also announced increases in their water rates in order to comply with federal water quality regulations and to upgrade their water system infrastructure. LADWP has planned two, separate water rate increases. The first would be implemented on July 1, 2006 and would be about a 3% increase for all customers. The second would be implemented on July 1, 2007 and would impact small, medium, and large customers differently. Small customers would see a 3.5% increase in their bills, medium customers would see a 3.9% increase, large customers would see a 12.7% increase. The initial water rate increase is incorporated into the Fiscal Year 2006-07 Utilities Budget.

### **County Cogeneration Agreements**

#### **SCE/Pitchess**

As stated earlier, under an Agreement with SCE, the Pitchess Cogeneration Plant sells excess power generation to SCE. Power payments by SCE are based on the price of natural gas and the efficiency of the Pitchess Plant. Under these arrangements, Pitchess receives revenues amounting to \$8 to \$10 million per year.

California's investor owned utilities (IOUs) have initiated a proceeding at the CPUC which seeks to adjust (reduce) the power payments to cogenerators like Pitchess Power Plant. Under SCE's proposed formula, Pitchess would receive 15-20% less in annual revenues. SCE would still pay for actual natural gas expenses at Pitchess; however, SCE is seeking to drastically reduce the basis for determining the value of the power provided by all cogenerators in the State.

ISD has been very active in this proceeding along with the other impacted parties, primarily refineries and other large, industrial customers with cogeneration plants. Unfortunately, the CPUC and ratepayer advocacy groups are so far supporting the IOUs' proposals for changing the payment formula. At this stage in the proceeding, ISD and others are attempting to negotiate the IOUs' proposed formula down to where it will have a less damaging impact to cogenerators. The CPUC and the IOUs are targeting a final decision in June 2006 with the new pricing formula to be implemented beginning July 1, 2006.

### **LADWP/Civic Center**

LADWP has also recently implemented a new tariff impacting cogenerators on their system. The tariff includes a "stand-by" charge which reflects LADWP's costs to be prepared to "back-up" the cogenerators and supply power when they are not operating.

In August 2005, ISD objected to this new charge since stand-by capability does not apply to the Civic Center Cogeneration Plant (i.e., it is not needed or provided). In November 2005, ISD was informed by LADWP that they concurred with our position.

However, under the 30-year Agreement between the County and LADWP that governs the operation of the plant, LADWP is able to index (increase) certain charges for the plant to be connected to their system. There have been no increases since the Agreement was signed in 1984, ISD anticipates that the worst-case impact of any increase would cost \$1 million per year in these charges. We will keep your Board apprised of any proposed change by LADWP to the Agreement.

### **Energy Efficiency Projects**

#### **\$3.7 Million Partnership with SCE, SCG (2004-05)**

ISD has completed projects in County facilities funded by the CPUC for calendar years 2004 and 2005 through a partnership with SCE and SCG. The projects included:

- Lighting retrofits and the installation of high efficiency boilers in over 100 facilities including many smaller sites (i.e., libraries and fire stations).
- Lighting controls installations in Ed Edelman Children's Court and the Ferguson Health Administration Center (City of Commerce).



- Heating, Ventilation and Air Conditioning (HVAC) system improvements through the retrocommissioning (RCx) process in 10 courthouses and the Public Library Headquarters.

ISD has for many years been implementing lighting retrofits and lighting controls throughout the County. These lighting projects have been implemented in nearly 70% of County building space (by square footage) and in nearly all large, viable County facilities. Large and medium facility lighting retrofit projects throughout the County are essentially completed in SCE territory. ISD is now focusing on energy savings through "tuning-up" HVAC systems (retrocommissioning) in large and medium County facilities. The results of the RCx projects completed under this program have verified that large, cost-effective savings potential exists in improving operations of these HVAC systems.

<b>Retro-commissioning (RCx) Project Results</b>	
Number of buildings retro-commissioned	11
Total floor area of buildings	1.7 million square feet
Total RCx budget	\$1.8 million
Estimated annual electricity savings	\$430,000
Average electricity savings per building	20%
Estimated annual natural gas savings	\$230,000
Average gas savings per building	40%
Total utilities dollars saved per year	\$660,000
Simple Payback	< 3 years

ISD estimates there are more than 100 County facilities large enough to be charged for electricity based on hourly rates and utilize natural gas to provide facility heating and/or cooling. They are ideal RCx candidates. ISD believes there is a large savings potential that could be realized under a comprehensive, County-wide RCx program. Under additional funding sources, ISD will be conducting further RCx projects as described below.

#### **\$6.0 Million Partnership with SCE, SCG (2006-08)**

Due to the success of the 2004-05 partnership described above, the County, SCE, and SCG renewed their partnership for calendar years 2006-08. The partnership funding was recently approved by the CPUC at a total of \$6.0 million and will focus on implementing additional RCx projects in SCE and SCG territories.

The facilities to be upgraded under the RCx process are still being identified by ISD. ISD will seek your Board's approval to enter into an Agreement with the IOUs and to enter into an Agreement(s) with one or more RCx providers later this year.



The CPUC, SCE and SCG have also expressed a desire to leverage the County and ISD's resources to implement additional energy projects in other local governments and public agencies in the region. A 2005 study conducted by the 2004-05 County/SCE/SCG partnership identified lack of industry knowledge and resources as the primary reasons why other local governments and public agencies were not doing more energy efficiency programs. Under this new partnership, ISD will continue exploring the viability of a centralized, regional energy office or utilizing existing County relationships with other public agencies to leverage ISD's energy resources.

### **\$3.1 Million Productivity Investment Fund (PIF) Loan**

Since the County's budgets dating from 2002 could not support funding energy projects, ISD has been acquiring funding through the CPUC's energy efficiency programs as administered by the IOUs. However, CPUC funding is restricted to SCE service territory. LADWP has prioritized investments in their power plant infrastructure to meet electricity demand instead of funding or emphasizing energy projects. As a result, ISD has not secured energy project funding in LADWP territory.

Earlier this year, ISD applied for and was awarded a Productivity and Quality Commission PIF Loan to implement energy efficiency projects in LADWP territory. Pending your Board's approval as requested by ISD in a Board Letter (May 16, 2006 agenda) ISD will contract to install efficient lighting, lighting controls, and parking garage fan controls in various facilities. In addition, ISD will manage RCx projects in the Kenneth Hahn Hall of Administration, the Adams and Grand Building, the DPSS Metro Special District Office, and the Metropolitan (Traffic) Courthouse. All of the projects are anticipated to begin around June of 2006 and be completed by December of 2006. The simple payback for the combination of projects is less than 5 years.

### **\$5.0 Million Budget Allocation (Fiscal Year 2006-07)**

Pending your Board's approval of the Fiscal Year 2006-07 County budget, ISD will receive a \$5 million appropriation to implement additional energy efficiency projects throughout the County. ISD appreciates the recommendation by the CAO's office to provide this funding and your Board's approval of the funding.

The majority of these funds will be targeted towards energy projects that are not eligible for the funding that ISD currently receives. The CPUC funding and the PIF loan funding have requirements that do not allow the implementation of many worthwhile energy projects. The CPUC funding can only be spent in SCE and SCG territories and must only be used with certain types of technologies. The PIF funding, as a loan, requires an overall payback period that must be approved by the PIF Committee.

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The projects that will be implemented using the budget appropriation are still being analyzed by ISD. However, ISD will focus on technologies that include automating and improving large plant operations, reducing demand during peak hours (demand reduction), shifting load from peak to off-peak hours (e.g., thermal storage), installing self generation at small to medium sized County facilities, and implementing renewable energy systems. ISD believes that the energy savings potential of projects outside of traditional lighting and current RCx technologies is large.

### **Future Energy Projects**

The CPUC has opened a new proceeding to examine the state's current energy efficiency programs, including the County/SCE/SCG partnership, and to set ground rules for program funding for calendar years 2009-11. Since 2002, and including the recently approved 2006-08 program, ISD has been awarded \$13 million from the CPUC for energy efficiency projects. ISD will keep your Board and the CAO apprised of our ongoing efforts and needs in continuing what has been a very successful venture between the County, the IOUs, and the CPUC.

The CPUC and the IOUs have confirmed that competition for energy efficiency program funding will be greater and that cost effectiveness (i.e., dollars spent per unit of energy saved) will be a major evaluation criterion. In earlier programs, ISD received funding to install projects while contributing only Energy Management Division resources to facilitate and manage the projects. As these programs receive more scrutiny by the CPUC and industry groups, it will be imperative that, in the future, the County contribute partial project funding to leverage CPUC funding and keep the County partnership viable and cost effective compared to other programs and partnerships. ISD will work with other departments and the CAO's office on this issue for the current (2006-08) and future (2009-11) programs.

If you have any questions, please contact me or have your staff contact ISD's Energy Management Division Manager, Howard Choy, at (323) 881-3939.

DL:HWC:gn  
Attachment  
c: Chief Administrative Officer  
Each Department Head  
County Counsel



# Attachment 1

## Natural Gas Historical Prices (\$/Million Btu)

